

**West Bengal State University**  
**B.A./B.Sc./B.Com. (Honours, Major, General) Examinations, 2014**

**Part - I**

**GEOGRAPHY — HONOURS**

**Paper - I**

Duration : 4 Hours

[ Maximum Marks : 100

*The figures in the margin indicate full marks.*

**GROUP - A**

**( GEOTECTONICS )**

**Category - A**

Answer any *one* question within 600 words.

1 × 10 = 10

1. Discuss the structure and composition of earth's interior with the help of seismic evidence. What are 'L' waves ? 8 + 2
2. Explain the concept of isostasy as put forward by Airy. How can you relate the formation of Himalayas with this theory ? 6 + 4

**Category - B**

Answer any *four* questions within 150 words each.

4 × 5 = 20

3. How does the alternate bands of normal and reverse magnetism on both sides of mid-oceanic ridge explain Sea Floor Spreading ? 5

4. Bring out the differences between continental crust and oceanic crust. 5
5. Discuss the major geologic and geomorphic events of the Eocene period. 5
6. Explain briefly the formation of Andes mountain in the light of plate tectonics. 5
7. How can you explain the distribution of glossopteris flora with the help of the Continental Drift theory of Wegener ? 5
8. Explain the formation of island arcs. 5
9. How is andesitic magma formed and how does it influence the explosion ? 5

**GROUP - B****( GEOMORPHOLOGY )****Category - A**

Answer any *two* questions within 600 words each.  $2 \times 10 = 20$

10. Describe the impact of the fast processes of mass wasting on the land surface. What is angle of repose ? 8 + 2
11. Discuss the evolution of drainage network and resultant landforms in an area of folded structure. Support your answer with suitable diagrams. 6 + 4
12. Critically explain why Hack's concept of landscape evolution is called 'non-cyclic'. According to Davis, what are the causes of interruption to the normal cycle of erosion ? 7 + 3
13. Discuss in detail the processes of glacial erosion. Explain the formation of cirque, hanging valley and roche moutonnee with suitable diagrams. 4 + 6

**Category - B**

Answer any *four* questions within 150 words each.  $4 \times 5 = 20$

14. Differentiate between hydration and hydrolysis. 5
15. How are resequent and obsequent fault line scarps formed ? 5
16. Distinguish between long shore drift and rip currents. 5
17. Explain the formation of nick points and incised meanders. 5
18. Draw a properly labelled neat sketch to show the different parts of a typical fault. 5
19. Mention some of the typical features of a landform developed over basaltic rock. 5
20. What do you understand by the term 'graded profile' ? 5

**GROUP - C****( HYDROLOGY AND OCEANOGRAPHY )****Category - A**

Answer any *one* question within 600 words.  $1 \times 10 = 10$

21. Give an account of the global hydrological cycle. How would the cycle be influenced by the change in climate ?  $7 + 3$
22. Classify the oceanic sediments on the basis of their origin and briefly mention the characteristics of each. 10

**Category - B**Answer any *four* questions within 150 words each.

4 × 5 = 20

23. Distinguish between unconfined and perched aquifer. 5
  24. How does landuse change affect surface runoff? 5
  25. Discuss with diagram the formation of Artesian well. 5
  26. How does soil texture and structure influence its infiltration capacity? 5
  27. What is T-S diagram? 5
  28. Define thermocline and mention how it is influenced by the depth of ocean. 5
  29. Discuss the characteristics of red clay marine ooze. 5
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